

**WHAT IS CLAIMED IS:**

1. An etched circuit with lightning protection comprising at least one main line connected to a connector adapted to the output of the transmission antenna of the transmission system working at a fixed frequency  $f_0$  or in a narrow frequency band  $\Delta f_0$ , the circuit comprising a capacitor, wherein said circuit comprises at least one first line with a length  $l_1$  and a width that may or may not be constant, connected to said connector and terminated by a short-circuit that is open-circuited with respect to the main line for the frequency  $f_0$ .
2. An etched circuit with lightning protection according to the above claim, comprising a second line with a length  $l_2$  and a width that may or may not be constant, connected to the output of the capacitor and terminated by a short circuit that is open-circuited with respect to the main line.
3. An etched circuit with lightning protection according to the above claim, wherein the widths of the first and second lines are different.
4. An etched circuit with lightning protection according to one of the above claims, wherein the first line comprises at least one first open stub.
5. An etched circuit with lightning protection according to one of the claims 2 to 4, wherein the second line comprises at least one second open stub.
6. An etched circuit with lightning protection according to one of the above claims, wherein the length  $l_1$  of the first line and/or the length  $l_2$  of the second line is a quarter of the wavelength of the frequency used  $f_0$ .
7. An etched circuit with lightning protection according to one of the above claims, wherein the width and/or the length of the first line and/or of the second line and/or of the first stub and/or of the second stub are determined as a function of the harmonic or harmonics  $nf_0$  (with  $n$  as an integer  $\geq 2$ ) to be filtered.
8. A method for the manufacture of an etched circuit with lightning protection, according to one of the claims 1 to 7, comprising the etching of the lines and of the capacitor of said etched circuit on the base of said circuit, the depositing of a film of conductive material and, if necessary, the scraping away of the excess conductive material in order to retain only the conductive material that has been deposited in the etching..
9. An application of the above-defined etched circuit with lightning protection according to one of the above claims 1 to 7, to the filtering of the second harmonic  $2f_0$  and the third harmonic  $3f_0$ .

10. An application of the method for the manufacture of an etched circuit with lightning protection according to claim 8 to the manufacture of an etched circuit with a common function of lightning protection and of the filtering of one of more harmonics  $nf_0$  (with  $n$  being an integer  $\geq 3$ ).